

CLAIMS

What is claimed is:

1. An isolated nucleic acid fragment encoding a pyridoxal kinase comprising a member selected from the group consisting of:
 - 5 (a) an isolated nucleic acid fragment comprising at least 400 contiguous nucleotides wherein the nucleic acid fragment encodes an amino acid sequence that is at least 80% identical to the amino acid sequence set forth in a member selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6 and SEQ ID NO:8;
 - 10 (b) an isolated nucleic acid fragment that is complementary to (a).
2. The isolated nucleic acid fragment of Claim 1 wherein nucleic acid fragment is a functional RNA.
3. The isolated nucleic acid fragment of Claim 1 wherein the nucleotide sequence of the fragment comprises the sequence set forth in a member selected from the group
15 consisting of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5 and SEQ ID NO:7.
4. A chimeric gene comprising the nucleic acid fragment of Claim 1 operably linked to suitable regulatory sequences.
5. A transformed host cell comprising the chimeric gene of Claim 4.
6. An isolated nucleic acid fragment encoding a pyridoxamine-phosphate oxidase
20 comprising a member selected from the group consisting of:
 - (a) an isolated nucleic acid fragment encoding an amino acid sequence that is at least 80% identical to the amino acid sequence set forth in a member selected from the group consisting of SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14 and SEQ ID NO:16;
 - 25 (b) an isolated nucleic acid fragment that is complementary to (a).
7. The isolated nucleic acid fragment of Claim 6 wherein nucleic acid fragment is a functional RNA.
8. The isolated nucleic acid fragment of Claim 6 wherein the nucleotide sequence of the fragment comprises the sequence set forth in a member selected from the group
30 consisting of SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13 and SEQ ID NO:15.
9. A chimeric gene comprising the nucleic acid fragment of Claim 6 operably linked to suitable regulatory sequences.
10. A transformed host cell comprising the chimeric gene of Claim 9.